

### III. CLAIMS

1. Cancelled
2. (Currently Amended) A method according to claim 25 ~~claim 1~~, wherein angiogenesis properties of a fibrin matrix are modified by changing the naturally occurring amount of a fibrinogen variant present in such matrix.
3. (Previously Presented) A method according to claim 25, wherein the fibrinogen variant whose concentration is varied in step b) is selected from the group consisting of at least one of HMW fibrinogen, LMW fibrinogen, LMW' fibrinogen, Fib420 fibrinogen and gamma' fibrinogen.
4. (Previously Presented) A method according to claim 25, wherein a fibrin matrix is formed which leads to accelerated angiogenesis.
5. Cancelled
6. (Previously Presented) A method according to claim 25, wherein a fibrin matrix is formed which leads to decelerated angiogenesis.
- 7-8. Cancelled
9. (Previously Presented) A method according to claim 25, wherein the fibrin matrix is formed *in vitro*, the fibrin matrix being formed by enzymatic conversion and optionally factor XIIIa

and  $\text{CaCl}_2$ , into fibrin.

10. (Withdrawn) A method according to claim 9, wherein the fibrin matrix is used in an angiogenesis test.

11. (Currently Amended) A method according to claim 25, wherein the fibrin matrix is formed *in vivo*, by applying the fibrinogen composition obtained after the *in vitro* modification of step (b), optionally in combination with a enzyme and optionally factor Xilla and  $\text{CaCl}_2$ , in a place where the formation of the fibrin matrix takes place.

12. (Original) A method according to claim 11 of inhibiting or preventing tumor growth, cicatrization, or adhesions, comprising applying the fibrinogen to *in situ* to burns and other wounds.

13. Cancelled

14. (Original) A pharmaceutical composition, comprising fibrinogen and a pharmaceutically acceptable carrier, wherein the fibrinogen consists of a selected fibrinogen variant or a fibrinogen enriched or depleted in a fibrinogen variant.

15. (Original) A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of HMW fibrinogen or of a mixture of fibrinogen variants enriched in HMW fibrinogen or depleted in LMW en/of LMW' fibrinogen.

16. (Original) A pharmaceutical composition according to claim 15, which is suitable for promoting wound healing, inhibiting or preventing cicatrization or treating burns.

17. (Original) A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of LMW fibrinogen or of a mixture of fibrinogen variants enriched in LMW fibrinogen or depleted in HMW fibrinogen.

18. (Original) A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of LMW' fibrinogen or of a mixture of fibrinogen variants enriched in LMW' fibrinogen or depleted in HMW fibrinogen.

19. (Previously Presented) A pharmaceutical composition according to claim 17, which is suitable for inhibiting or preventing tumor growth or adhesions.

20. (Original) A test kit, comprising components for the formation of a fibrin matrix, including fibrinogen, wherein the fibrinogen consists of a selected fibrinogen variant or a fibrinogen enriched or depleted in a selected fibrinogen variant.

21. (Original) A test kit according to claim 20, wherein the fibrinogen consists of HMW fibrinogen or of a mixture of fibrinogen variants enriched in HMW fibrinogen or depleted in LMW and/or LMW' fibrinogen.

22. (Previously Presented) A test kit according to claim 20, also comprising an enzyme suitable for forming fibrin from fibrinogen, such as thrombin, and optionally factor XIIIa and/or  $\text{CaCl}_2$ .

23. (Previously Presented) A test kit according to claim 20,

also comprising components for effecting angiogenesis.

24. (Original) A test kit according to claim 23, comprising as components for effecting angiogenesis one or more angiogenic growth factors, such as fibroblast growth factor-2 (FGF-2) or vascular endothelial growth factor (VEGF), and/or tumor necrosis factor alpha (TNF- $\alpha$ ), and/or cells, such as human endothelial cells.

25. (Currently Amended) A method for modifying angiogenesis in a patient comprising administering to such patient a fibrin matrix modified by a process ~~the properties of a fibrin matrix~~ comprising the steps of

- a) selecting a composition consisting of multiple variants of fibrogen,
- b) modifying in vitro the fibrogen content of at least one fibrogen present in of the composition of step a) to change the relative concentration of such at least one fibrinogen variant, and
- c) forming a fibrin matrix from the composition of step b).

26. (Previously Presented) A method according to claim 2 where the fibrinogen variant whose concentration is varied in step b) is HMW fibrinogen.

27. (Previously Presented) A method according to claim 2 where the fibrinogen variant whose concentration is varied in step b) is LMW fibrinogen.

28. (Previously Presented) A method according to claim 2 where the fibrinogen variant whose concentration is varied in step b) is LMW' fibrinogen.

29. (Previously Presented) A method according to claim 2 where the fibrinogen variant whose concentration is varied in step b) is Fib420 fibrinogen.

30. (Previously Presented) A method according to claim 2 where the fibrinogen variant whose concentration is varied in step b) is gamma fibrinogen.

31. (Previously Presented) A method according to claim 2 where the HMW fibrinogen concentration is increased.

32. (Previously Presented) A method according to claim 2 where the HMW fibrinogen concentration is decreased.

33. (Previously Presented) A method according to claim 2 where the LMW fibrinogen concentration is increased.

34. (Previously Presented) A method according to claim 2 where the LMW fibrinogen concentration is decreased.

35. Cancelled

36. (New) The method of claim 31 where the HMW fibrinogen concentration is at least 80%.

37. (New) The method of claim 32 where the HMW fibrinogen concentration is no more than 70%.